

**A STUDY ON LIPID PROFILE AND
ASSESSMENT OF CARDIOVASCULAR
RISK IN SUBCLINICAL
HYPOTHYROIDISM**

ABSTRACT

Background: The studies on association between subclinical hypothyroidism and lipid profile have produced conflicting results. The assessment of cardiovascular risk skin subclinical hypothyroid patients are rare in Indian scenario. **Aim:** To study the lipid profile in subclinical hypothyroid patients and to assess the cardiovascular risk in subclinical hypothyroid patients by using atherogenic indexes. **Materials and Methods:** In this case - control study newly diagnosed untreated subclinical hypothyroid patients were studied for dyslipidemia and cardiovascular risk is assessed using lipid ratios Atherogenic index of Plasma and Castelli risk index- I and II compared to euthyroid subjects. To find the significant difference between the bivariate samples in Independent groups the Unpaired sample t-test was used and to find the significance in categorical data Chi-Square test and Fisher's Exact was used. In all the above statistical tools the probability value .05 was considered as significant level. **Results:** Total cholesterol ,triglyceride and VLDL-C levels shows statistically significant association among

subclinical hypothyroid patients compared to euthyroid subjects. Castelli risk index-II showed statistically significant association in subclinical hypothyroid patients compared to euthyroid controls. **Conclusion:** The positive association of subclinical hypothyroid patients and dyslipidemia warrants that all patients with subclinical hypothyroidism should be evaluated for deranged lipid profile parameters. Castelli risk index-II calculated as LDL-C/HDL-C could be used as a better predictor of cardiovascular risk compared to the other risk assessment ratios Atherogenic index of plasma and Castelli risk index I.

Keywords: Subclinical hypothyroidism, Dyslipidemia, Lipid ratios, Atherogenic index of plasma, Castelli Risk Index- I & II.